which had been undiscovered. And it is not at all infrequent to find that older children, irritable and unhappy, are the victims of a rectum which partially prolapses and then retracts without being discovered.

Did time permit, there are many other conditions which might be cited as causes of discomfort. Those mentioned have been chosen in order to emphasize the need for a wide investigation when we are dealing with these crying infants. But before closing I must draw your attention to a very frequent and yet rarely recognized cause not only of distress, but of real disability on the part of infants during their second year; that is the inability properly to digest starch. A very large number of infants of this age brought to the pediatrist show a greater or less degree of starch indigestion which results in diarrhea or, in some instances, constipation with fermentation in the intestine that produces the protuberant belly so easily recognized. With this goes a high degree of acidity of the urine, not infrequently acetonuria, and as a result of this acetonuria, irritability, restlessness, broken sleep, a halt in or a loss of weight, and a condition that is alarming to the parents. These children suffer from pain about the umbilicus, and are often among the most uncomfortable little human beings with which we have to deal, and they are not only themselves uncomfortable, but because of their irritibility, they make everyone who comes into contact with them equally uncomfortable, and yet in the whole realm of therapeutic endeavor, there is no class of case that so readily responds to proper regimen and treatment. Most often, these children are called delicate, it is supposed that their appetites are so frail that they must be fed whenever they desire to eat, with a result that in their case, hunger never comes to the aid of digestion. They are the victims of mistaken kindness, forever nibbling at some food. A restriction to three meals a day, limitation of starch, or its presentation in an easily digestible form with the exhibition of diastase for the digestion and iron to remedy the anemia almost always present, will make these little ones rapidly comfortable and rosy.

In conclusion, much of the discomfort suffered by infants is needless and promptly remediable, but the many causes that may lead to distress must be kept in mind and a diagnosis reached by exclusion before the cause can be eliminated with certainty.

DEATH FOLLOWING AN ANT BITE.*

By T. C. EDWARDS, M. D., Salinas.

On April 18th, 1913, a little girl four years old living in the mountains ran into the house complaining that something was biting her. Upon investigation it was found that she had been bitten or stung upon the chest in several places by a large red ant.

The child was robust with an excellent family history, four great-grandparents still living. That afternoon she complained more or less of the bites but was about as usual the next day. Three or four days after she was bitten her mother noticed that the places where she was bitten had turned bluish and were about the size of a split pea. On April 24th, six days later, she vomited, complained of being cold and her mother noticed small spots coming on her body and extremities which later turned blue.

That night she was "feverish" and on the 25th she was brought to town. She had an axillary temperature of 103.8°, pulse 144, resp. 24. The temperature varied from 101° to 105°. Pulse never below 130, usually 150; resp. 30-40.

She was suffering from a purpura hemorrhagica of a very severe type. She was bleeding from the nose, mouth, stomach, bowels and urinary tract. She was given arsenic and iron, calcium chloride and gelatine with no improvement. I drew a few ounces of blood from the father's arm and gave a half ounce of serum hypodermically which was repeated twice. There was no blood in urine after second dose. She grew steadily worse, however, and died on April 30th. The last three days she was very sore and cried when moved. I find that there has been little written about ant bites and nothing about the venom.

Ants are somewhat like bees. The venom is secreted in the posterior part of the body and in those ants that have stings the venom is injected into the tissues with the sting. In those that use their mandibles as a means of attack the venom is deposited in the bites made by their mandibles, the ants doubling up so as to bring the posterior part of the body immediately over the injury and the venom is squirted into the cuts. In Costellani and Chambers' *Manuel of Tropical Medicine,* concerning tropical ants, we read, "The venom is well known to contain formic acid but there must be more than this in the venom of the tropical species, though nothing is known on the subject." Mention is made in the *London Lancet,* Jan. 10, 1914, of a practice among some tribes of indians of using the dried and mashed bodies of red ants to poison their arrows, but no mention is made of the character of the symptoms produced in those injured by these missiles. Mention is made of symptoms sometimes produced by tropical ants such as chill fever and sometimes paralysis. Reptiles and small animals are said to be killed by being bitten or stung by ants. A brood of young ducks was killed near where my patient lived by being bitten or stung on the feet. One of our prominent stock men who has interests in the Yuma Valley, Arizona, informs me that many suckling pigs are killed there by a large ant. Two letters from the Yuma Valley confirm this statement. The writers both say that the pigs sometimes die in a few hours, but usually live two or three days and finally die with the hind quarters paralyzed. One writer says these same ants destroy alfalfa and grain for a short distance around their holes. London purple, bisulphide of carbon and cyanide are used to kill these ants.

Dr. Margaret Hamilton Smyth of the State Hospital at Stockton reports a pet chameleon killed in a short time by eating a red ant. The symptoms were the same as in the pigs, viz., a paralysis of the hind quarters.

Not knowing of these symptoms I made no investigation to determine whether my little patient had any paralytic condition or not.

Dr. L. B. Bates, bacteriologist in the Ancon Hospital, Panama, has done some experimental

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work on ants to determine whether they will convey pathogenic bacteria and if so how. His experiments show that ants fed on typhoid and other bacteria must destroy them as no bacteria are to be found in the alimentary canal of ants so fed. He attributes this to the large amount of formic acid to be found in their bodies. The bacteria are, however, carried on their feet and deposited on culture plates over which they have passed. The development of purpuric spots first at the points of injury and later in other parts of the body would seem to show a relationship betweeen the injury and the disease. The time elapsing after the bite before constitutional symptoms arose argues in favor of infection of bacterial origin. Was it, then, some unknown bacteria or some unknown venom that caused the symptoms or were the symptoms simply a coincidence?

The symptoms somewhat resemble Rocky Mountain spotted fever, though no cattle from infected districts have been brought into this range.

The venom of rattlesnake has an action on the blood somewhat similar. That is, it so affects the blood as to cause extravisations, but these are limited mostly to the extremity that is bitten and contiguous parts. Besides, there are active and progressive symptoms immediately following snake bite. Ordinarily any toxic drug or venom, so far as I know, produces symptoms very shortly after its introduction into the circulation and the process of elimination begins at once. If the system is not overwhelmed, the venom is partly destroyed by the psychological action of the blood and partly eliminated, until health is restored.

In our case two or three days intervened between the cessation of local symptoms and the advent of constitutional symptoms. But there were patechial or purpuric spots at the site of the original injuries before constitutional symptoms appeared, and the constitutional symptoms were present before any new spots were seen and before there was any bleeding from the mucous membranes.

Is it possible that any venom might produce in susceptible individuals a slowly advancing destruction of the coagulating elements in the blood which are only manifested in constitutional symptoms after several days, or was there some other infection that did this?

Whatever may be the answer to these questions, our little patient was profoundly intoxicated and lost her life as a result of such intoxication.

INTRACRANIAL PRESSURE.

By HOWARD C. NAFFZIGER, M. D., San Francisco.

The statement is often made that nerve cases are discouraging. It is said that they are very interesting in a diagnostic way, but that there is not much of value in treatment. The interest is too often confined to the anatomical or pathological findings. There is surely much less ground for such remarks now than ten years ago. Treatment medical and surgical has lagged behind diagnosis more in this than in any other department of medicine.

The great majority of all organic nerve disorders that are benefited by therapy can be divided into two classes. First, syphilis of the nervous system; second, surgical conditions of the nervous system. The treatment of brain and spinal cord syphilis is notoriously unsatisfactory as compared with syphilis of most other parts of the body. It is true that some of the syphilitic nerve cases do not respond at all to treatment. It is equally true that many non-luetic cases are needlessly saturated with iodides, mercury and arsenic. Since this treatment is the only medical resource we have, these patients are overwhelmed with the drugs, whether they are syphilitic or not. As a result in non-specific cases valuable time is lost. Even in specific cases, operative treatment must still be kept in mind.

A young woman with brain syphilis some time ago came to my notice. This woman had been subjected to a most strenuous course of medical treatment. During this time her vision had become so impaired from the optic neuritis that little was left. Following a decompression for the relief of this symptom marked improvement followed. In the course of weeks the results of medication began to show and a subsidence of all symptoms followed. The only relic remaining was much impaired vision. An earlier decompression in this case would have saved most, if not all, of this impairment. Even in the definitely syphilitic cases, such as the one quoted, it is not unusual to find it necessary to employ surgical means to remove a gumma or arrest a rapidly progressing optic neuritis until effects of medication are obtained. The possibility of surgical relief is too late a thought. The number benefited by surgical means is rapidly increasing.

The mechanical conditions which can be remedied by surgical means are then of greatest importance to recognize, and it seems that in the diagnosis of neurological and general medical conditions as well, too little attention has been paid to them. Attention is focused toward making a correct anatomical and pathological diagnosis and valuable time lost, while the urgent symptoms are not given the importance in the clinical picture which they deserve.

A thorough understanding of intracranial pressure is necessary. It is the great guide to treatment in most surgical brain conditions.

Intracranial pressure in its different stages presents varied pictures. Recognition that there is increased pressure is not difficult in the great majority of cases. When it is present immediate treatment must be instituted. Surgical intervention is often required and should always be considered.

Peritonitis has a direct relation to diseases of certain abdominal organs. It demands immediate treatment irrespective of the point where the infection began. Likewise intracranial pressure has a relation to many diseases of the nervous system and demands immediate treatment without regard to the local lesion present. Delay often means blindness or death.

In the abdomen we may divide the signs and symptoms of a ruptured appendix first into those indicating a peritonitis; second, those indicating by